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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,818	01/28/2000	Mark Alperovich	109289.00121	2697

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EXAMINER	
ANGEBRANNDT, MARTIN J	
ART UNIT	**PAPER NUMBER**
1756	9

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

TC-9

Office Action Summary	Application No.	Applicant(s)	
	09/493,818	ALPEROVICH ET AL.	
	Examiner	Art Unit	
	Martin J Angebranndt	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1 The response provided by the applicant has been read and given careful consideration. Responses to the arguments offered by the applicant are presented after the first rejection to which they are directed. The rejections under 35 U.S.C. 112 are withdrawn based upon the amendments of the applicant.

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3 Claims 11,12,14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al.'792.

Tamura et al. '792 teaches optical recording media such as example 1-18 which mixes a **cyanine dye (201)** with a polymethine coloring agent coated on a polycarbonate substrate and dried. (1-1 is at column 28 and 1-18 is at column 31) The addition of other dyes, such as cyanine, phthalocyanine, xanthene dyes and stabilizers to the recording layer is disclosed. (25/15-26/26) The use of binders, including ethyl cellulose and nitrocellulose is disclosed. (26/61-65) The addition of plasticizers, surface active agents and the like to improve the film forming properties and stability of the coated film is disclosed. The examiner notes that the dispersants are surfactants (26/66-27/5) The use of various coating methods is disclosed. (27/12-23). The drying of the recording medium is disclosed in the examples. The use of underlayers between the support and the recording layer to protect the substrate from coating solvents and increase adhesion of the recording layer is disclosed. These may be 5-100 nm in thickness. The use of

various resins is disclosed, including UV curing resins, thermosetting resins, vinyl resins, silicones, silica (silicon dioxide), liquid rubber (latexes) and thermoplastic resins. (27/30-53) Useful coating solvents are disclosed. (26-48) Useful substrates are also disclosed. (25/12-14). The formation of a air sandwich structure where two media are bonded together with an air gap or alternatively bonded directly to each other via a protective layers is disclosed. (27/66-28/7)

It would have been obvious to add a binder, a plasticizer and a stabilizer to the composition of example 1-18 of Tamura et al. '792 based upon the disclosure that these are desirable additives to the recording layer and to use a primer such as a thermosetting resin to increase the adhesion and the resistance of the substrate to damage from the coating solvents based upon the direction to do so. Additionally, it would have been obvious to form a dual recording layer media, using the air sandwich or bonded directly together via their protective layer to double recording capacity of a single medium.

The applicant argues intended use. The examiner notes that the claims are tot he article or methods of making it. The issue of how it is used is not relevant to the claims at hand unless it was impossible to use them in the manner described. This is clearly not the case. The rejection stands.

The applicant argues that polymethine dyes do not fluoresce, but misses the point as a cyanine dyes is also described in that reference in the cited example 1-18. Cyanine dyes are disclosed as fluorescent within the specification on page 5 at line 10. Cyanine dyes are actually a type of polymethine dyes, due to the presence of a polymethine linkage between the terminal groups, so the applicant's representative is also incorrect in the broad brush assertion that polymethine dyes are not fluorescent. The examiner notes that the dye on page 4 of JP 63-195838 is a polymethine dye and the abstract of the reference specifically describes the use of fluorescent dyes. The examiner notes that the claims are to the article, the coverage sought is for

that article irrespective of use. The examiner adds that the assertion that the reference does not disclose fluorescent dyes is without merit based upon the disclosure in the instant specification on page 5 at line 10 and WO 99/243527. This is an inherent property, irrespective of if it is used with respect to the operation of the optical recording medium. The applicant neglects the fact that to fluoresce, light must be absorbed and therefore the use of transmittance or reflectance measurements at the laser wavelength, would be an acceptable means top determine the state of the cyanine dye. The emission does not affect the absorption of the light any differently than other relaxation means would. The absorption occurs first.

4 Claims 11-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al.'792, in view of Sasakawa et al. '094.

Sasakawa et al. '094 teaches the coating of optical recording media where the drying includes heating up to 100 degrees C. (8/1-3) Useful solvents are disclosed. (4/20-6/25). The use of polyvinyl chloride resins as substrate materials is disclosed. (3/7-12). The addition of soluble resins, such as ethyl cellulose, acrylic resins and various vinyl resins is disclosed. (7/1-11)

In addition to the basis provide above, the examiner holds that it would have been obvious to modify the process of Tamura et al.'792, by drying at 100 degrees C based upon the direction within Sasakawa et al. '094 that this is known in the art and produces useful optical recording media with a reasonable expectation of success.

The rejection stands for the reasons provided above without further response as no additional arguments were directed at this rejection.

5 Claims 11-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al.'792, in view of Sasakawa et al. '094 and further in view of Sato et al. '554.

Sato et al. '554 teaches with respect to example 8 in column 10 a recording medium formed from a cyanine dye and a plasticizer coated from a solvent. Useful plasticizers are disclosed (5/10-44). The addition of antioxidants, such as nickel complexes is disclosed. (3/31-35). The addition of a binder is disclosed (3/27-35 and 3/57-4/10) and these may be selected from materials disclosed as useful in forming the protective layer, including various vinyl resins, acrylic resins, and cellulose derivatives . (3/27-31 and 3/57-4/8). The use of an undercoat layer is also disclosed. (7/8) Useful substrates are also disclosed, including polycarbonate, polyvinyl chloride and polyethylene resins. (2/4-15) Other useful dyes including phthalocyanine dyes are disclosed. (2/39-46)

In addition to the basis provided above, it would have been obvious to use other binders disclosed as useful, such as polyvinyl chloride as taught by Sato et al. '554,in the invention of Tamura et al.'792 and Sasakawa et al. '094, based upon the disclosure of equivalent function.

The rejection stands for the reasons provided above without further response as no additional arguments were directed at this rejection.

6 Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al.'792, in view of Sasakawa et al. '094 and further in view of Sato et al. '554 and Suzuki '574.

Suzuki '574 teaches cyanine dyes such as those disclosed in column 32 as useful in optical recording media. Useful solvents include diethylene glycol (38/42-43).

In addition to the basis provided above, it would have been obvious to use other solvents, such as diethylene glycol as taught by Suzuki '574,in the invention of Tamura et al.'792, Sasakawa et al. '094 and Sato et al. '554, based upon the disclosure of equivalent function.

7 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Angebranndt whose telephone number is (703) 308-4397.

I am normally available between 7:30 AM and 5:00 PM, Monday through Thursday and 7:30 AM and 4:00 PM on alternate Fridays.

If repeated attempts to reach me are unsuccessful, my supervisor may be reached at (703) 308-2464.

Facsimile correspondence should be directed to (703) 3872-9310.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Martin J. Angebranndt
Primary Examiner, Group 1750
September 9, 2002